

**EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
OFFICE OF THE STATE FIRE MARSHAL (SFM)
REGARDING THE ADOPTION BY REFERENCE OF THE
2006 EDITION OF THE UNIFORM MECHANICAL CODE (UMC)
INTO THE CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 4.**

Legend for Express Terms:

1. California amendments brought forward without modification: *All such language appears in Italics.*
 2. California amendments brought forward with modification: *All such language appears in Italics, modified language is underlined.*
 3. New UMC language with new California amendment: UMC language is shown in normal Arial 9 pt. California amendments to UMC text appear underlined and in italics.
 4. New California amendment: California language appears underlined and in Italics.
 5. Repealed Text: Shown as ~~Strikeout~~.
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Chapter 1 Administration

101.1 These regulations shall be known as the “California Mechanical Code,” which incorporates the 2000 revisions, copyrighted by the International Association of Plumbing and Mechanical Officials, to the Uniform Mechanical Code, may be cited as such, and will be referred to herein as “this code.”

101.2 Title – California Mechanical Code. This document shall be known as the “California Mechanical Code.” Where a reference to the Uniform Mechanical Code or UMC appears in the text of this code, the reader shall understand the reference to be to the California Mechanical Code at Part 4 of Title 24, California Code of Regulations. The provisions contained in the California Mechanical Code of the (compiled) California Building Standards Code, Title 24, California Code of Regulations as defined in Health and Safety Code Section 18910, may be cited as such and are referred to hereafter as these regulations, “these mechanical standards” or “this code.”

102.0 Purpose

The purpose of this code is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, installation, quality of materials, location, operation, and maintenance or use of heating, ventilating, cooling, refrigeration systems, incinerators and other miscellaneous heat-producing appliances within this jurisdiction. **[For SFM]** for the State of California and local enforcement agencies.

The purpose of this code is not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this code.

103.0 Scope

103.1 Applicability. The provisions of this code shall apply to the erection, installation, alteration, repair, relocation, replacement, addition to, use or maintenance of any heating, ventilating, cooling, refrigeration systems, incinerators or other miscellaneous heat-producing appliances within this jurisdiction. **[For SFM]** for the State of California and local enforcement agencies.

Additions, alterations, repairs and replacement of equipment or systems shall comply with the provisions for new equipment and systems, except as otherwise provided in Section 104.0 of this code.

Exception: **[For HCD 1]** Additions, Alterations or Repairs. The alteration, repairs, replacement, occupancy, use and maintenance provisions are superseded, in part, by State Housing Law, Health and Safety Code, Division 13, Part 1.5, Sections 17912, 17920.3, 17922(c), 17958.8 and 17958.9 and California Code of Regulations, Title 25, Chapter 1 (commencing with Section 1). Health and Safety Code Section 17958.8 is repeated here for clarity and reads as follows:

Section 17958.8 Local ordinances or regulations governing alterations and repair of existing buildings shall permit the replacement, retention, and extension of original materials and the use of original methods of construction as long as the hotel, lodging house, motel, apartment house, or dwelling, or portions thereof, or building and structure accessory thereto, complies with provisions published in the State Building Standards Code and the other rules and regulations of the department or alternative local standards adopted pursuant to Section 17920.7 and does not become or continue to be a substandard building.

Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

[For HCD 1 & 2] Mechanical standards in the code shall have no retroactive or retrospective effect or application on existing construction unless the term and time of application of such standards are specifically identified or specified in this code and California law.

The design and testing of equipment regulated by this code shall be subject to the approval of the Administrative Authority **[For SFM]** enforcing agency provided in section 108.1.1.

The standards contained in Appendix A shall be considered as part of this code. Appendix B contains recommended practices which shall not apply unless specifically adopted. Appendix C contains gas venting tables and is intended to serve only as a guide. Appendix D contains conversion tables and a table for determining the approximate minimum thickness for carbon sheet metal.

103.1.1 Effective Date.

103.1.1.1 [For SFM] Unless otherwise noted herein, effective date is 180 days after the date of publication.

103.1.5 [For SFM] Non-Building Regulations. Requirements contained in the U.M.C., or in any other reference standard, code, or documents, which are not buildings standards as defined in Health and Safety Code Section 18909, shall not be construed as part of the provisions of this code.

103.1.6 [For SFM] Validity. In any chapter, section, subsection, sentence, clause or phrase of this code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the State as stipulated by statutes, or otherwise inoperative, such decision shall not affect the validity of the remaining portion of this code.

103.1.7 [For SFM] Format. This part fundamentally adopts the U.M.C. by reference on a chapter-by-chapter basis. Such adoption is reflected in the adoption tables of each chapter of this part. When the adoption table of a chapter of this part makes no reference to a specific chapter of the U.M.C., such chapter of the U.M.C. is not adopted as a portion of this code.

103.1.8 [For SFM] Standard Reference Documents.

103.1.8.1 [For SFM] Code and Standards Adoption. The codes, standards and publications, adopted and set forth in this code, including other codes, standards and publications referred to therein, are by title and date of publication, hereby adopted as standard reference documents of this code.

103.1.8.2 [For SFM] When this code does not specifically cover any subject relating to building design and construction, recognized fire-protection engineering practices shall be employed. The National Fire Codes and the Fire Protection handbook of the National Fire Protection Association may be used authoritative guides in determining recognized fire-prevention engineering practices.

104.6 Nonbuilding Regulations. Requirements contained in the UMC, or in any other referenced standard, code or document, which are not building standards as defined in section 18909, Health and Safety Code, shall not be construed as part of the provisions of this code. For the applicability of regulations relating to maintenance, operation, use, limitations or prohibitions, and similar nonbuilding regulations, see other titles of the California Code of Regulations.

105.0 Alternate Materials and Methods of Construction

105.1 The provisions of this code are not intended to prevent the use of any material or method of construction not specifically prescribed by this code, provided any such alternate has been approved and the use authorized by the Administrative

Authority.

However, the exercise of this discretionary approval by the Administrative Authority shall have no effect beyond the jurisdictional boundaries of said Administrative Authority. Any alternate material or method of construction so approved shall not be considered as conforming to the requirements and/or intent of this Code for any purpose other than installation or use within the jurisdiction granting the exception.

The Administrative Authority may authorize any alternate, provided the Administrative Authority finds the proposed design is satisfactory for the intended use and complies with the provisions of this code and that the material, method or work offered is, for the purpose intended, at least equivalent to that prescribed by this code in suitability, strength, effectiveness, fire resistance, durability and safety.

The Administrative Authority shall require sufficient evidence or proof be submitted to substantiate any claims made regarding the use of alternates. The details of any action granting approval of an alternate shall be recorded and shall be entered in the files of the code enforcement agency.

105.2 [For SFM] Order of Precedence . *Where in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. When there is a conflict between a general and a specific requirement, the specific requirement shall apply. Mechanical standards in the code shall have no retroactive or retrospective effect or application on existing construction unless the term and time of application of such standards are specifically identified or specified in this code.*

105.3 Requests for Alternate Means of Protection. [For SFM] *Request for approval to use an alternate material, assembly of materials, equipment, method of construction, method of installation of equipment, or means of protection shall be made in writing to the enforcing agency by the owner or the owner's authorized representative and shall be accompanied by a full statement of the conditions. Sufficient evidence or proof shall be submitted to substantiate any claim that may be made regarding its conformance. The enforcing agency may require tests and the submission of a test report from an approved testing organization as set forth in Section 2.13, Title 19, California Code of Regulations, to substantiate the equivalency of the proposed alternate means of protection.*

Approval of a request for use of an alternate material, assembly of materials, equipment, method of construction, method of installation of equipment, or means of protection made pursuant to these provisions shall be limited to the particular case covered by request and shall not be construed as establishing any precedent for any future request.

105.4 Appeals. [For SFM] *When a request for an alternate means of protection has been denied by the enforcing agency, the applicant may file a written appeal to the state fire marshal for consideration of the applicant's proposal. In considering such appeal, the state fire marshal may seek the advice of the State Board of Fire Services. The state fire marshal shall, after considering all of the facts presented, including any recommendation of the State Board of Fire Services, determine if the proposal is for the purpose intended, at least equivalent to that specified in these regulations in quality, strength, effectiveness, fire resistance, durability and safety, and shall transmit such findings and his or her recommendations to the applicant and to the enforcing agency.*

108.0 Powers and Duties of the Administrative Authority

108.1 General. The Administrative Authority is hereby authorized and directed to enforce all the provisions of this code. For such purposes the Administrative Authority shall have the powers of a law enforcement officer.

The Administrative Authority shall have the power to render interpretations of this code and to adopt and enforce rules and regulations supplemental to this code as may be deemed necessary in order to clarify the application of the provisions of this code. Such interpretations, rules and regulations shall be in conformity with the intent and purpose of this code.

[For SFM] *Pursuant to Health and Safety Code Section 13146, the responsibility for enforcement of building standards adopted by the state fire marshal and published in the California Building Standards Code relating to fire and panic safety and other regulations of the state fire marshal shall be as follows:*

- 1. The same agency or entity to whom authority to enforce building standards not related to fire and panic safety is delegated by the city, county, or city and county with jurisdiction the area affected by the building standard shall enforce within its jurisdiction the building standards and other regulations of the state fire marshal as they relate to Group R, Division 3 Occupancies, as defined in Section 310 of Part 2 of the California Building Standards Code.*
- 2. The chief of any city or county fire department or of any fire district, and his or her authorized representatives, shall enforce within its jurisdiction the building standards and other regulations of the state fire marshal, except those described in Section 108.1 or 108.4.*

3. The state fire marshal shall have authority to enforce such building standards and other regulations of the state fire marshal in areas outside of corporate cities and districts providing fire protection services.

4. The state fire marshal shall have authority to enforce such building standards and other regulations of the state fire marshal in corporate cities and districts providing fire-protection services upon request of the chief fire official or the governing body.

5. Upon the written request of the chief fire official of any city, county or fire-protection district, the state fire marshal may authorize such chief fire official and his or her authorized representatives, in their geographical area of responsibility, to make fireprevention inspections of state-owned or stateoccupied buildings, other than state institutions, for the purpose of enforcing the regulations relating to fire and panic safety adopted by the state fire marshal pursuant to this section and building standards relating to fire and panic safety published in the State Building Standards Code. Authorization from the state fire marshal shall be limited to those fire departments or fire districts which maintain a fireprevention bureau staffed by paid personnel.

Any requirement or order made by any chief fire official pursuant to this section may be appealed to the state fire marshal. The state fire marshal shall, upon receiving an appeal and subject to the provisions of Chapter 5 (commencing with Section 18945) of Part 2.5 of Division 13 of the Health and Safety Code, determine if the requirement or order made is reasonably consistent with the fire and panic safety regulations adopted by the Office of the State Fire Marshal and building standards relating to fire and panic safety published in the California Mechanical Code.

The building official shall have the power to render interpretations of this code and to adopt and enforce rules and regulations supplemental to this code as may be deemed necessary in order to clarify the application of the provisions of this code. Such interpretations, rules and regulations shall be in conformity with the intent and purpose of this code.

[For SFM] Any person may request a code interpretation from the state fire marshal relative to the intent of any regulation or provision adopted by the state fire marshal. When the request relates to a specific project, occupancy or building, the state fire marshal shall review the issue with the appropriate local enforcing agency prior to rendering such code interpretation.

108.1.1 Application-Vesting authority. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the State Legislature.

108.1.1.13 [For SFM] SFM- Office of the State Fire Marshal.

Application-Any building or structure used or intended for use as an asylum, jail, mental hospital, hospital, sanitarium, home for the aged, children's nursery, children's home, school or any similar occupancy of any capacity.

Any theater, dance hall, skating rink, auditorium, assembly hall, meeting hall, nightclub, fair building, or similar place of assemblage where 50 or more persons may gather together in a building, room or structure for the purpose of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation, or education.

Authority Cited-H&SC § 13143. Application-Small Family Day-care Homes.

Authority Cited-H&SC §1597.45, 1597.54, 13143 and 17921.

Application-Large Family Day-care Homes.

Authority Cited-H&SC §1597.46, 1597.54, and 17921 .

Application-Residential Facilities and Residential Facilities for the Elderly.

Authority Cited-H&SC §13113, 13131.5 and 13133.

Application-Any state institution or other state-owned or state-occupied building.

Authority Cited-H&SC §13108. Application-High-rise Structures.

Authority Cited-H&SC §13211. Motion Picture Production Studios

Authority Cited- H&SC §13143.1.

Application-Organized Camps.

Authority Cited-H&SC §18897.3.

Application-All hotels, motels, lodging houses, apartment houses and dwellings, including congregate residences and buildings and structures accessory thereto. Multiple-story structures existing on January 1, 1975, let for human habitation, including and limited to, hotels, motels, apartment houses, less than 75 feet (22 860 mm) above the lowest floor level having building access, wherein rooms used for sleeping are let above the ground floor.

Authority Cited-H&SC §13143.2 and 17921.

Application-Certified family-care homes, out-of home placement facilities, halfway houses, drug and/or alcohol rehabilitation facilities and any building or structure used or intended for use as a home or institution for the housing of any person of any age when such person is referred to or placed within such home or institution for protective social care and supervision

services by any governmental agency.

Authority Cited-H&SC §13143.6.

Application-Tents, awnings or other fabric enclosures used in connection with any occupancy.

Authority Cited-H&SC §13116.

Fire alarm devices, equipment and systems in connection with any occupancy.

Authority Cited-H&SC §13114.

Hazardous materials.

Authority Cited-H&SC §13143.9.

Flammable and combustible liquids.

Authority Cited-H&SC §13143.6.

Enforcing Agency-The responsibility for enforcement of building standards adopted by the State Fire Marshal and published in the California Building Standards Code relating to fire and panic safety and other regulations of the Office of the State Fire Marshal shall be as follows:

1. The city, county, or city and county with jurisdiction in the area affected by the standard or regulation shall delegate the enforcement of the building standards relating to fire and panic safety and other regulations of the State Fire Marshal as they relate to Group R, Division 3 dwellings to either of the following:

1.1 The chief of the fire authority of the city, county, or city and county, or an authorized representative.

1.2 The chief building official of the city, county, or city and county, or an authorized representative.

2. The chief of any city or county fire department or of any fire-protection district, and authorized representatives, shall enforce within the jurisdiction the building standards and other regulations of the State Fire Marshal, except those described in Items 1 and 4.

3. The State Fire Marshal shall have authority to enforce the building standards and other regulations of the State Fire Marshal in areas outside of corporate cities and districts providing fire-protection services.

4. The State Fire Marshal shall have authority to enforce the building standards and other regulations of the state fire marshal in corporate cities and districts providing fire-protection services on request of the chief fire official or the governing body.

5. Any fee charged pursuant to the enforcement authority of this section shall not exceed the estimated reasonable cost of providing the service for which the fee is charged pursuant to §66014 of the Government Code.

108.3 Right of Entry. When it is necessary to make an inspection to enforce the provisions of this code, or when the Administrative Authority has reasonable cause to believe that there exists in a building or upon a premises a condition which is contrary to or in violation of this code which makes the building or premises unsafe, dangerous or hazardous, the Administrative Authority may enter the building or premises at reasonable times to inspect or to perform the duties imposed by this code, provided that if such building or premises be occupied that credentials be presented to the occupant and entry requested. If such building or premises be unoccupied, the Administrative Authority shall first make a reasonable effort to locate the owner or other person having charge or control of the building or premises and request entry. If entry is refused, the Administrative Authority shall have recourse to the remedies provided by law to secure entry.

[For SFM] The fire chief of any city, county or fire-protection district, or such person's authorized representative, may enter any state institution or any other state-owned or state-occupied building for the purpose of preparing a fire-suppression preplanning program or for the purpose of investigating any fire in a state-occupied building. The state fire marshal, his or her deputies or salaried assistants, the chief or any city or county fire department or fire protection district and his or her authorized representatives may enter any building or premises not used for dwelling purposes at any reasonable hour for the purpose of enforcing this chapter. The owner, lessee, manager or operator of any such building or premises shall permit the state fire marshal, his or her deputies or salaried assistants and the chief of any city or county fire department or fire-protection district and his or her authorized representatives to enter and inspect them at the time and for the purpose stated in this section.

109.2 [For SFM] Fire Hazard. No person, including but not limited to the state and its political subdivisions, operating any

occupancy subject to these regulations shall permit any fire hazard, as defined in this section, to exist on premises under their control, or fail to take immediate action to abate a fire hazard when requested to do so by the enforcing agency.

NOTE: "Fire hazard" as used in these regulations means any condition, arrangement or act which will increase, or may cause an increase of, the hazard or menace of fire to a greater degree than customarily recognized as normal by persons in the public service of preventing, suppressing or extinguishing fire; or which may obstruct, delay or hinder, or may become the cause of obstruction, delay or hindrance to the prevention, suppression or extinguishment of fire.

112.2 Exempt Work. A mechanical permit shall not be required for the following:

112.2.1 A portable heating appliance, portable ventilating equipment, portable cooling unit or portable evaporative cooler.

112.2.2 A closed system of steam, hot or chilled water piping within heating or cooling equipment regulated by this code.

112.2.3 Replacement of any component part or assembly of an appliance which does not alter its original approval and complies with other applicable requirements of this code.

112.2.4 Refrigerating equipment which is part of the equipment for which a permit has been issued pursuant to the requirements of this code.

112.2.5 A unit refrigerating system.

112.2.6 [For SFM] State-owned buildings under the jurisdiction of the state fire marshal.

113.2.1 SFM Stamp of Approval Required. [For SFM] When plans and specifications are reviewed and approved by the state fire marshal, such plans and specifications shall bear the stamp of approval of the state fire marshal and shall be available at the site of construction for review by the enforcing agency.

113.2.2 Public Schools. [For SFM] Plans and specifications for the construction, alteration or addition to any building owned, leased or rented by any public school district shall be submitted to the Division of the State Architect, Structural Safety Section for review and approval.

EXCEPTION: [For SFM] Upon the annual submission of a written request by the chief of any city, county, or city and county fire department or fire-protection district to the state fire marshal, approvals required by this subsection shall be obtained from the appropriate chief or his or her authorized representative. In such instances plans and specifications may be submitted to the state fire marshal for relay to the appropriate local authority or may be submitted directly to such local authority.

113.2.3 Movable Walls and Partitions. [For SFM] Plans or diagrams shall be submitted to the enforcing agency for approval before the installation of, or rearrangement of, any movable wall or partition in any occupancy. Approval shall be granted only if there is no increase in the fire hazard.

113.2.4 New Construction High-rise Buildings. [For SFM]

1. Complete plans or specifications, or both, shall be prepared covering all work required to comply with new construction high-rise buildings. Such plans and specifications shall be submitted to the enforcing agency having jurisdiction.

2. All plans and specifications shall be prepared under the responsible charge of an architect or a civil or structural engineer authorized by law to develop construction plans and specifications, or by both such architect and engineer. Plans and specifications shall be prepared by an engineer duly qualified in that branch of engineering necessary to perform such services. Administration of the work of construction shall be under that charge of the responsible architect or engineer except that where plans and specifications involve alterations or repairs, such work of construction may be administered by an engineer duly qualified to perform such services and holding a valid certificate under Chapter 7 (commencing with Section 65700) of Division 3 of the Business and Professions Code for performance of services in that branch of engineering in which said plans, specifications and estimates and work of construction are applicable.

This section shall be construed as preventing the design of fire extinguishing systems by persons holding a C-16 license issued pursuant to Division 3, Chapter 9, Business and Professions Code. In such instances, however, the responsibility charge of this section shall prevail.

113.2.5 Existing High-rise Buildings. [For SFM]

1. Complete plans or specifications, or both, shall be prepared covering all work required by Part 2, Title 24, California Code of Regulations, or existing high-rise buildings. Such plans or specifications shall be submitted to the enforcing agency having jurisdiction.

2. When new construction is required to conform with the provisions of these regulations, complete plans or specifications, or both, shall be prepared in accordance with the provisions of this subsection. As used in this section "new construction" is not intended to include repairs, replacements or minor alterations which do not disrupt or appreciably add to or affect the structural aspects of the building.

114.1.1 [For SFM] The application, plans, specifications, computations and other data filed by an applicant for permit shall be reviewed by the building official. Such plans shall be reviewed by other departments of this jurisdiction in accordance with state law, Health and Safety Code Section 13146, in occupancies regulated by the state fire marshal in order to verify compliance with applicable laws under their jurisdiction. If the building official finds that the work described in an application for a permit and the plans, specifications and other data filed there with conform to the requirements of the code and other pertinent laws and ordinances and that the fees specified in Section 115 have been paid, the building official shall issue a permit therefore to the applicant.

114.2.2 One set of approved plans, specifications and computations shall **[for SFM]** may be retained by the building official until final approval of the work covered therein. One set of approved plans and specifications shall be returned to the applicant, and said set shall be kept on the site of the building or work at all times during which the work authorized thereby is in progress.

116.5 Other Inspections. In addition to the called inspections required by this code, the Administrative Authority may make or require other inspections of mechanical work **[For SFM]** including, but not limited to, fire-protection and fire-detection systems to ascertain compliance with the provisions of this code and other laws which are enforced by the code enforcement agency.

118.0 Certificate of Occupancy [For SFM]

118.1 Use and Occupancy. No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made, until the building official has issued a Certificate of Occupancy therefore as provided herein.

Exception: Group R, Division 3 and Group M Occupancies.

Issuance of a Certificate of Occupancy shall not be constructed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Certificates presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid.

118.2 Change in Use. Changes in the character or use of a building shall not be made except as specified in Section 3405 of the Uniform Building Code.

118.3 Certificate Issued. After the building official inspects the building or structure, in accordance with Section 104.2 of the Uniform Building Code, and finds no violations of the provisions of this code or other laws which are enforced by the code enforcement agency, the building official shall issue a Certificate of Occupancy which shall contain the following:

1. The building permit number.
2. The address of the building.
3. The name and address of the owner.
4. A description of that portion of the building for which the certificate is issued.
5. A statement that the described portion of the building has been inspected for compliance with the requirements of the California Building Standards Code for the group and division of occupancy and the use for which the proposed occupancy is classified.
6. The name of the building official.

118.4 Temporary Certificate. If the building official finds that no substantial hazard will result from occupancy of any building or portion thereof before the same is completed, a temporary Certificate of Occupancy may be issued for the use of a portion or portions of a building or structure prior to the completion of the entire building or structure.

118.5 Posting. The Certificate of Occupancy shall be posted in a conspicuous place on the premises and shall not be removed except by the building official.

119.0 Format [For SFM] This part fundamentally adopts the UMC by reference on a chapter-by-chapter basis. Such adoption is reflected in the adoption table of each chapter of this part. When the adoption table of a chapter of this part makes no reference to a specific chapter of the UMC, such chapter of the UMC is not adopted as a portion of this code.

120.0 Validity [For SFM] If any chapter section, subsection, sentence, clause or phrase of this code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the state as stipulated by statutes, or otherwise inoperative,

such decision shall not affect the validity of the remaining portion of this code.

121.0 Standard Reference Documents

121.1 [For SFM] The codes, standards and publications adopted and set forth in this code, including other codes, standards and publications referred to therein are, by title and date of publication, hereby adopted as standard reference documents of this code.

121.2 [For SFM] When this code does not specifically cover any subject relating to building design and construction, recognized fire-protection engineering practices shall be employed. The National Fire Codes and the Fire Protection handbook of the National Fire Protection Association may be used as authoritative guides in determining recognized fire-prevention engineering practices.

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

CHAPTER 2 DEFINITIONS

(Note: Adopt entire chapter as amended below.)

203 A

APPROVED as to materials, equipment and method of construction, refers to approval by the Administrative Authority ~~[For SFM] or enforcing agency~~, as the result of investigation and tests by the Administrative Authority ~~[For SFM] or enforcing agency~~, or by reason of accepted principles or tests by national authorities, technical or scientific organizations.

APPROVED AGENCY is an established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when such agency has been approved by the Administrative Authority ~~[For, SFM] or enforcing agency~~.

ASSEMBLY BUILDING is a building or a portion of a building used, ~~[For SFM] or intended to be used~~ for the gathering together of fifty (50) or more persons for such purposes as deliberation, education, instruction, worship, entertainment, amusement, drinking, dining or awaiting transportation. ~~[For SFM] or education; or structure or portion thereof used or intended to be used for the showing of motion pictures when an admission fee is charged and when such building or structure is open to the public and has a capacity of 10 or more persons. For applications listed in section 111 regulated by the Office of the State Fire Marshal refer to the California Building Code, Title 24, Part 2 for use and occupancy classification.~~

AUTHORITY HAVING JURISDICTION The organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, installations, or procedures. The authority having jurisdiction shall be a federal, state, local or other regional department or an individual such as a plumbing official; mechanical official; labor department official; health department official; building official or others having statutory authority. In the absence of a statutory authority, the authority having jurisdiction may be some other responsible party. This definition shall include the authority having jurisdiction's duly authorized representative. For applications listed in section 111 regulated by the Office of the State Fire Marshal "Authority Having Jurisdiction" shall mean "Enforcing Agency" as defined in Section 207.0 of this code..

204 B

BRINE – As determined in accordance with NFPA 30.

For applications listed in section 111 regulated by the Office of the State Fire Marshal, **BRINE [For SFM]** is a liquid used for the transmission or heat without a change in its state, having no flash point above 150 F (65.5 C), as determined by the requirements of **UMC Standard 2-3** or in accordance with Section 5415 (f) Title 8, California Code of Regulations.

2001/2004 CMC

BUILDING CODE is the building code, which is adopted by this jurisdiction. ~~[For SFM] For purpose of the California Mechanical Code, “Building Code” shall be the most recent edition of the California Building Code.~~

BUILDING OFFICIAL ~~[For SFM]~~ is the officer charged with the administration and enforcement of this code, or a regularly deputy. See “Enforcing Agency” For the State of California, “Building Official” shall be the “Enforcing Agency” as specified in Section 108.

2006 UMC

BUILDING CODE – The building code that is adopted by this jurisdiction. For applications listed in section 111 regulated by the Office of the State Fire Marshal “Building Code” shall mean the California Building Code, Title 24, Part 2.

BUILDING OFFICIAL – See **Authority Having Jurisdiction**. For applications listed in section 111 regulated by the Office of the State Fire Marshal “Building Official” is the officer charged with the administration and enforcement of this code, or a regularly deputy. See “Enforcing Agency” For the State of California, “Building Official” shall be the “Enforcing Agency” as specified in Section 111.

207 E

ENFORCING AGENCY ~~[For SFM]~~ is the designated department or agency as specified in statutes to enforce the specific building standards promulgated or adopted by the specified state agency.

208 F

FIRE CODE – ~~The fire code adopted by this jurisdiction.~~ Whenever the term “Fire Code” is used in this code, it shall mean the California Fire Code.

214 L

LISTED and LISTING For applications listed in section 111 regulated by the Office of the State Fire Marshal “Listed” and “Listing” are terms referring to equipment or materials included in a list published by an approved testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of current productions of listed equipment or materials and which listing states that the material or equipment complies with approved nationally recognized codes, standards or tests and has been tested or evaluated and found suitable for use in a specific manner. These terms shall also mean equipment or materials accepted by the State Fire Marshal as conforming to the provisions of these regulations and which are included in a list published by the State Fire Marshal.

217 O

OCCUPANCY CLASSIFICATION. ~~[FOR SFM] Shall be those as shown in the California Building Code, for the purpose of this code, certain occupancies are defined as follows:~~ Refer to the California Building Code, Title 24, Part 2 for use and occupancy classification.

Group A Occupancies

Group A Occupancies include the use of a building or structure, or a portion thereof, for the gathering together of fifty (50) or more persons for purposes such as civic, social, or religious functions, recreation, education or instruction, food or drink consumption, or awaiting transportation. A room or space used for assembly purposes by less than fifty (50) persons and accessory to another occupancy shall be included as a part of that major occupancy. Assembly occupancies shall include the following:

Division 1. A building or portion of a building having an assembly room with an occupant load of 1,000 or more and a legitimate stage.

Division 2. A building or portion of a building having an assembly room with an occupant load of less than 1,000 and a legitimate stage.

Division 2.1. A building or portion of a building having an assembly room with an occupant load of 300 or more without a legitimate stage, including such buildings used for educational purposes and not classed as a Group B or E Occupancy.

Division 3. A building or portion of a building having an assembly room with an occupant load of less than 300 without a legitimate stage, including such buildings used for educational purposes and not classed as a Group B or E Occupancy.

Division 4. Stadiums, reviewing stands, and amusement park structures not included within other Group A Occupancies. Specific and general requirements for grandstands, bleachers, and reviewing stands are in the Building Code.

Exception: Amusement buildings, or portions thereof, that are without walls or a roof and constructed to prevent the accumulation of smoke in assembly areas.

Group B Occupancies

Group B Occupancies shall include buildings, structures, or portions thereof for office, professional, or service-type transactions that are not classified as Group H Occupancies. Such occupancies include occupancies for the storage of records and accounts and eating and drinking establishments with an occupant load of less than fifty (50).

Group C Occupancies: [For SFM]

1. Organized Camp is a site with program and facilities for the primary purposes of providing an outdoor group living experience with social, spiritual, educational or recreational objectives for five days or more during one or more seasons per year. (see Section 18897 of the Health and Safety Code.)

Group E Occupancies

Division 1. Any building used for educational purposes through the 12th grade by fifty (50) or more persons for more than twelve (12) hours per week or four (4) hours in any one day.

Division 2. Any building used for educational purposes through the 12th grade by less than fifty (50) persons for more than twelve (12) hours per week or four (4) hours in any one day. **Division 3.** Any building or portion thereof used for day-care purposes for more than six (6) persons.

[For SFM] Exception: A residence used as a home school for the children who normally reside at the residence. Such residences shall remain classified as Group R, Division 1 or 3

Division 3. [For SFM] Any nonresidential building or portion thereof used for day-care purposes for more than six children/persons. Any residential building used for day-care purposes for more than 14 persons. Licensing categories that may use this category include: Adult Day Care Facilities, Family Day Care Homes, Day Care Centers, Adult Day Support Center, Day Care Center for Mildly Ill Children, Infant Care Center, School-Age Child Day Care Centers.

Group F Occupancies

Group F Occupancies shall include the use of a building or structure, or a portion thereof, for assembling, disassembling, fabricating, finishing, manufacturing, packaging, repair, or processing operations that are not classified as Group H Occupancies. **Division 1.** Moderate-hazard factory and industrial occupancies shall include factory and industrial uses that are not classified as Group F, Division 2 Occupancies.

Division 2. Low-hazard factory and industrial occupancies shall include facilities producing noncombustible or nonexplosive materials that, during finishing, packing, or processing, do not involve a significant fire hazard.

Group H Occupancies

Group H Occupancies shall include buildings or structures, or portions thereof, that involve the manufacturing, processing, generation, or storage of materials that constitute a high fire, explosion, or health hazard. For definitions, identification and control of hazardous materials and pesticides, and the display of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in Group B, F, M, or S Occupancies, see the Fire Code.

Division 1. Occupancies with a quantity of material in the building in excess of those listed in the Building Code, that present a high-explosion hazard.

Division 2. Occupancies where combustible dust is manufactured, used, or generated in such a manner that concentrations and conditions create a fire or explosion potential. Occupancies with a quantity of material in the building in excess of those listed in the Building Code that present a moderate explosion hazard or a hazard from accelerated burning.

Division 3. Occupancies where flammable solids, other than combustible dust, are manufactured, used, or generated.

Division 4. Repair garages not classified as Group S, Division 3 Occupancies.

Division 5. Aircraft repair hangars and heliports not classified as Group S, Division 5 Occupancies.

Division 6. Semiconductor fabrication facilities and comparable research and development areas in that hazardous production materials (HPM) are used and the aggregate quantity of materials is in excess of those listed in the Building Code.

Division 7. Occupancies having quantities of materials in excess of those listed in the Building Code that are health hazards.

Division 8. Laboratories and similar areas used for scientific experimentation or research having quantities of materials not in excess of those listed in Tables 3-D.1 and 3-E, California Building Code, and not otherwise classified as Group B, Division 2 Occupancies. Such laboratories may be classified as Group B, Division 2 Occupancies when the quantities of materials are not in excess of those listed in Tables 3-D and 3-E, California Building Code. Laboratories having quantities of materials in excess of those listed in Table 3-E, California Building Code, and which are located below the fourth story may be classified as a Group H, Division 7 Occupancy.

Group I Occupancies

Division 1.1. Nurseries for the full-time care of children under the age of six (each accommodating more than five children)

[For SFM six children].

Hospitals, sanitariums, nursing homes ~~[For SFM, OSHPD 1, 2 & 3] and homes for the aged with non-ambulatory patients, p r o t e c t i v e social care facilities or homes with nonambulatory guests, and similar buildings (each accommodating more than five patients or six patients, as required by the office of the State Fire Marshal).~~

Division 1.2. Health care centers for ambulatory patients receiving outpatient medical care which may render the patient incapable of unassisted self-preservation (each tenant space accommodating more than five such patients).

Division 2. Nursing homes for ambulatory p a t i e n t s **[for SFM]** where medical care is provided, homes for ambulatory children six years of age or over where medical care is provided, or homes with ambulatory guests where medical care is provided, and similar buildings and honor farms and conservation camps housing inmates who are not restrained (each accommodating more than five patients or children **[for SFM]** six patients or children).

Division 3. Mental hospitals, mental sanitariums, jails, prisons, reformatories and buildings where personal liberties of inmates are similarly restrained.

Group M Occupancies

Group M Occupancies shall include buildings, structures, or portions thereof, used for the display and sale of merchandise, and involving stocks of goods, wares or merchandise, incidental to such purposes and accessible to the public.

Group R Occupancies

Division 1. Hotels and apartment houses. Congregate residences (each accommodating more than ten (10) persons).

Division 2. Not used.

Division 2.1. [For SFM] ~~Residentially based, licensed facilities accommodating more than six nonambulatory clients. This division may include ambulatory clients. Licensing categories that may use this classification include, but are not limited to: Adult Residential Facilities, Congregate Living Health Facilities, Residential Care Facilities for the Elderly, Group Homes and Residential Care Facilities for the Chronically III.~~

Division 2.1.1. [For SFM] ~~Residentially based, licensed facilities accommodating six or less nonambulatory clients. This division may include ambulatory clients. Licensing categories that may use this classification include, but are not limited to: Adult Residential Facilities, Congregate Living Health Facilities, Foster Family Homes, Intermediate Care Facilities for the Developmentally Disabled Habilitative, Intermediate Care Facilities for the Developmentally Disabled Nursing, nurseries for the full-time care of children under the age of six, but not including "infants" as defined in Section 210; Residential Care Facilities for the Elderly, Small Family Homes and Residential Care Facilities for the Chronically III.~~

Division 2.2. [For SFM] ~~Residentially based, licensed facilities accommodating more than six ambulatory clients. This division may include nonambulatory clients and shall not exceed six nonambulatory clients. Licensing include, but are limited to: Adult Residential Facilities, Residential Care Facilities for the Elderly, Group Homes, Community Treatment Facilities and Social Rehabilitation Facilities.~~

Division 2.2.1. [For SFM] ~~Residentially based, licensed facilities accommodating six or less ambulatory clients. This division may include a maximum of two nonambulatory clients. Licensing categories that may use this classification include, but are not limited to: Adult Residential Facilities, Intermediate Care Facilities for the Developmentally Disabled Habilitative, Intermediate Care Facilities for the Developmentally Disabled Nursing, Nursing Homes, Residential Care Facilities for the Elderly, Foster Family Homes, Group Homes, Small Family Homes, Community Treatment Facilities and Social Rehabilitation Facilities.~~

Division 2.3. [For SFM] ~~Residentially based, licensed facilities providing hospice care throughout accommodating more than six bedridden clients. Licensing categories that may use this classification are limited to: Congregate Living Health Facilities for the Terminally III and Residential Care Facilities for the Chronically III.~~

~~**Division 2.3.1. [For SFM]** Residentially-based facilities providing hospice care throughout accommodating six or less bedridden clients. Licensing categories that may use this classification are limited to: Congregate Living Health Facilities for the Terminally Ill and Residential Care Facilities for the Chronically Ill.~~

~~**Division 3 Dwellings [F or SFM]** Dwellings used for large family day care homes (as defined in Chapter 2, Section 205) and lodging houses. Licensing categories that may use this classification include, but are not limited to: Adult Daycare Facilities, Family Day-care Homes, Adult Day-support Center, Day-care Center for Mildly Ill Children, Infant Care Center and School Age Child Day-care Center. Congregate residences (each accommodating ten (10) persons or less).~~

~~**Division 6 OCCUPANCIES** shall be residential group care facilities which provide care and/or supervisory services. Restraint shall not be practiced in these facilities.~~

~~Such residential group care facilities are limited to halfway houses such as community correctional centers, community correction reentry centers, community treatment programs, work furlough programs, and alcoholism or drug abuse recovery or treatment facilities.~~

~~**Division 6.1 OCCUPANCIES** are those Division 6 Occupancies with more than six nonambulatory residents.~~

~~**Division 6.2 OCCUPANCIES** are those Division 6 Occupancies with more than six ambulatory residents.~~

~~**Division 6.1.1 OCCUPANCIES** are those Division 6 Occupancies with six or less nonambulatory residents.~~

~~**Division 6.2.1 OCCUPANCIES** are those Division 6 Occupancies with six or less ambulatory residents.~~

Group S Occupancies

Group S Occupancies shall include the use of a building or structure, or a portion thereof, for storage not classified as a hazardous occupancy.

~~**Division 1.** Moderate hazard storage occupancies shall include buildings or portions of buildings used for storage of combustible materials that are not classified as Group S, Division 2 or Group H Occupancies.~~

~~**Division 2.** Low hazard storage occupancies shall include buildings or structures, or portions thereof, used for storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions, or in paper wrappings, and shall include ice plants, power plants, and pumping plants.~~

~~**Division 3.** Division 3 Occupancies shall include repair garages where work is limited to exchange of parts and maintenance requiring no open flame or welding, motor vehicle fuel dispensing stations, and parking garages not classed as Group S, Division 4 open parking garages or Group U private garages.~~

~~**Division 4.** Open parking garages.~~

~~**Division 5.** Aircraft hangars where work is limited to exchange of parts and maintenance requiring no open flame or welding, and helistops.~~

Group U Occupancies

~~**Division 1.** Private garages, carports, sheds, and agricultural buildings.~~

~~**Division 2.** Fences six (6) feet (1,829 mm) high, tanks, and towers.~~

Notation

Authority: Health and Safety Code Section 13133, 13143, 13143.6

Reference: Health and Safety Code Section 18949.2

CHAPTER 3 GENERAL REQUIREMENTS

(Note: Adopt entire chapter as amended below.)

304.6 Liquefied Petroleum Gas Facilities. Containers, container valves regulating equipment, and appurtenances for the storage and supply of liquefied petroleum gas shall be installed in accordance with the **[For SFM]** California Fire Code.

Notation

Authority: Health and Safety Code Section 13143.9

Reference: Health and Safety Code Section 18949.2

CHAPTER 4 VENTILATION AIR SUPPLY

(Note: Adopt entire chapter as amended below.)

401.0 General

This chapter contains requirements for ventilation air supply and exhaust, evaporative cooling systems and makeup-air requirements for direct-gas-fired heaters, industrial air heaters, and miscellaneous heaters. ~~[For SFM]~~ *For applications listed in section 111 regulated by the Office of the State Fire Marshal Air air filters shall comply with all requirements of State Standard 12-71-1.*

Notation

Authority: Health and Safety Code Section 13143

Reference: Health and Safety Code Section 18949.2

CHAPTER 5 EXHAUST SYSTEMS

(Note: Adopt entire chapter as amended below.)

2001/2004 CMC

509.5 Grease Filters. Type I hoods shall be equipped with approved grease filters designed for the specific purpose. ~~[For SFM]~~ *Grease filters shall be Class I when tested in accordance with the test method in SFM 12-71-1.* Grease collecting equipment shall be accessible for cleaning. The lowest edge of a grease filter located above the cooking surface shall be at least the height set forth in Table 5-2.

Filters and grease extractors shall be of such size, type and arrangement as will permit the required quantity of air to pass through such units at rates not exceeding those for which the filter or unit was designed or approved. Filter units shall be installed in frames or holders with handles by which they may be readily removed without the use of tools, unless designed and installed to be cleaned in place and the system is equipped for such cleaning in place. They shall be sized and made removable so they may be passed through a dishwashing machine or cleaned in a pot sink and so arranged in place or provided with drip intercepting devices as to avoid grease or other condensate from dripping into food or on food preparation surfaces.

Filters shall be installed at an angle greater than forty five degrees (45°) (0.79 rad) from the horizontal and shall be equipped with a drip tray beneath the lower edge of the filters.

2006 UMC

509.2.4 Grease Filters. Grease filters shall be listed and constructed of steel or listed equivalent material and shall be of rigid construction that will not distort or crush under normal operation, handling, and cleaning conditions. [NFPA 96: 6.2.3.1 and 6.2.3.2] *For applications listed in section 111 regulated by the Office of the State Fire Marshal, grease filters shall be Class I when tested in accordance with the test method in SFM 12-71-1.*

510.7 Interior Installations

510.7.1 ~~[SFM does not adopt]~~ In all buildings more than one story in height, and in one-story buildings where the roof-ceiling assembly is required to have a fire resistance rating, the ducts shall be enclosed in a continuous enclosure extending from the lowest fire-rated ceiling or floor above the hood, through any concealed spaces, to or through the roof so as to maintain the integrity of the fire separations required by the applicable building code provisions. The enclosure shall be sealed around the duct at the point of penetration of the lowest fire-rated ceiling or floor above the hood in order to maintain the fire resistance rating of the enclosure and shall be vented to the exterior of the building through weather-protected openings.

Exception: The continuous enclosure provisions shall not be required where a field-applied grease duct enclosure or a factory-built grease duct enclosure (see Section 507.2.3) is protected with a listed duct through-penetration protection system equivalent to the fire resistance rating of the assembly being penetrated, and the materials are installed in accordance with the

conditions of the listing and the manufacturer's instructions and are acceptable to the Authority Having Jurisdiction.

For applications listed in section 111 regulated by the Office of the State Fire Marshal, See Section 510.7.1.1.

510.7.1.1 [For SFM] A grease duct serving a Type I hood which penetrates a ceiling, wall or floor shall be enclosed in a duct enclosure from the point of penetration. A duct may only penetrate exterior walls at locations where unprotected openings are permitted by the building code. Duct enclosures shall be constructed in accordance with the California Building Code. Duct enclosures shall be of a least one-hour fire-resistive construction in all buildings and shall be of two-hour fire-resistive construction in Types I and II fire-resistive buildings. The duct enclosure shall be sealed around the duct at the point of penetration and vented to the exterior through weather protected openings. The enclosure shall be separated from the duct by at least three (3) inches (76mm) and not more than twelve (12) inches (305mm) and shall serve a single grease exhaust duct system.

510.7.5 If openings in the enclosure walls are provided, they shall be protected by approved self-closing fire doors of proper rating **[For SFM]** in accordance with the California Building Code. Fire doors shall be installed in accordance with NFPA 80, Standard for Fire Doors and Fire Windows **[For SFM]** UBC Standard 7-2. Openings on other listed materials or products shall be clearly identified and labeled according to the terms of the listing and the manufacturer's instructions and shall be acceptable to the Authority Having Jurisdiction. The panels shall be readily accessible.

Notation

Authority: Health and Safety Code Section 13143

Reference: Health and Safety Code Section 18949.2

511.1.6 All wiring and electrical equipment shall comply with ~~NFPA 70, National Electrical Code~~ **[For SFM]** California Electrical Code.

512.2.5 All electrical equipment shall be installed in accordance with ~~NFPA 70, National Electrical Code~~ **[For SFM]** California Electrical Code, with due regard to the effects of heat, vapor, and grease on the equipment.

513.2.2.1 Automatic fire-extinguishing systems shall be installed in accordance with the terms of their listing, the manufacturer's instructions, and the following standards **[For SFM]** adopted by reference in the California Building and Fire Code where applicable. [NFPA 96:10.2.6]

- (1) NFPA 12, 2000 Edition, Standard on Carbon Dioxide Extinguishing Systems
- (2) NFPA 13, 2002 Edition, Standard for the Installation of Sprinkler Systems
- ~~(3) NFPA 17, 2002 Edition, Standard for Dry Chemical Extinguishing Systems~~
- ~~(4-3) NFPA 17A, 2002 Edition, Standard for Wet Chemical Extinguishing Systems~~

513.3 Simultaneous Operation. Fixed-pipe extinguishing systems in a single hazard area shall be arranged for simultaneous automatic operation upon actuation of any one of the systems.

Exception No. 1: Where the fixed-pipe extinguishing system is an automatic sprinkler system.

Exception No. 2: A dry or wet chemical system shall be permitted to be used to protect common exhaust ductwork by one of the methods specified in ~~NFPA 17, Standard for Dry Chemical Extinguishing Systems, or NFPA 17A, Standard for Wet Chemical Extinguishing Systems~~, in lieu of simultaneous automatic operation.

ISOR for Sections 513.2.2.1 and 513.3

Changes in the cooking medium and appliance efficiency in modern restaurants have significantly altered the fire hazard in cooking areas. This necessitated a change in the UL testing standards for fixed extinguishing systems in 1994. Although it has been almost 10 years since the issuance of the new standard many existing locations are still protected by

non-compliant systems even though they are using the newer cooking mediums and high efficiency appliances. This represents a risk of loss of property and personal injury as these non-compliant systems have been shown to lack effectiveness in extinguishing fires under modern conditions. Current code and manufacturer's requirements call for a semi-annual service/maintenance of all restaurant fire suppression systems. The State Fire Marshal has determined that it is not in the public interest to continue to service and certify fire suppression systems that do not meet the requirements of UL 300.

The State Fire Marshal has determined that this regulatory action will produce a significant public and private benefit by reducing the risk of property loss and/or personal injury to the owners of the commercial cooking equipment, the public, and surrounding businesses. It should also reduce the cost of fighting fires at restaurants that are properly protected.

Notation

Authority: Health and Safety Code Sections 13114, 18928

Reference: Health and Safety Code 18949.2

513.10 Portable Fire Extinguishers. ~~[For SFM not adopted For SFM regulated occupancies see Title 19, Chapter 3, Article 5]~~

513.10.1 Portable fire extinguishers shall be installed in kitchen cooking areas in accordance with ~~NFPA 10, Standard for Portable Fire Extinguishers~~ Chapter 3, Title 19 California Code of Regulations. Such extinguishers shall use agents that saponify upon contact with hot grease, such as sodium bicarbonate and potassium bicarbonate dry chemical and potassium carbonate solutions. Class B gas-type portables such as CO2 and halon shall not be permitted in kitchen cooking areas. Manufacturer's recommendations shall be followed.

513.10.2 Other fire extinguishers in the kitchen area shall be installed in accordance with ~~NFPA 10, Standard for Portable Fire Extinguishers~~ Chapter 3, Title 19 California Code of Regulations.

ISOR for Section 513.10.1 and 513.10.2

H & S Code 13160. Regulations and standards; administration. With the advice of the State Fire Advisory Board, the State Fire Marshal shall adopt, in accordance with the provisions of Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, and administer regulations and standards as he or she may deem necessary for the protection and preservation of life and property to control the servicing, including charging, and testing, of all portable fire extinguishers for controlling and extinguishing fires, and for controlling the sale and marketing of all such devices with respect to conformance with standards of their use, capacity, and effectiveness. In adopting the regulations, the State Fire Marshal shall consider the standards of the National Fire Protection Association.

13161. Legislative intention. It is the legislative intention in enacting this chapter that the provisions of this chapter and the regulations and standards adopted by the State Fire Marshal pursuant to this chapter shall apply uniformly throughout the State of California and no county, city, city or county or district shall adopt or enforce any ordinance or rule or regulation regarding portable fire extinguishers which is inconsistent with the provisions of this chapter or

the regulations and standards adopted by the State Fire Marshal pursuant to this chapter.

516.2.5 No electrical wiring shall be installed in the interior sections of the hood plenum that might become exposed to grease.

Exception: As permitted by ~~NFPA 70, National Electrical Code~~ **[For SFM]** *California Electrical Code*.

516.2.7 Listing evaluation shall include the following:

(A) Capture and containment of vapors at published and labeled airflows.

(B) Grease discharge at the exhaust outlet of the system not to exceed an average of 5 mg/m³ of exhausted air sampled from that equipment at maximum amount of product that is capable of being processed over a continuous 8-hour test per EPA Test Method 202, Determination of Condensable Particulate Emissions for Stationary Sources, with the system operating at its minimum listed airflow.

(C) Listing and labeling of clearance to combustibles from all sides, top, and bottom.

(D) Electrical connection in the field in accordance with ~~NFPA 70, National Electrical Code~~ **[For SFM]** *California Electrical Code*.

(E) Interlocks on all removable components that lie in the path of airflow within the unit to ensure that they are in place during operation of the cooking appliance.

Notation

Authority: Health and Safety Code 18928

Reference: Health and Safety Code 18949.2

CHAPTER 6 DUCT SYSTEMS

(Note: Adopt entire chapter as amended below.)

606.8 ~~[For SFM]~~ *When the automatic activation of a smoke damper or a combination smoke-fire damper occurs, the HVAC system serving such dampers shall immediately shut down.*

Exceptions:

1. HVAC systems that are part of an engineered smoke evacuation system.
2. Where the automatic activation ~~of~~ causes all the smoke dampers and combination smoke-fire dampers to close in the enclosed space having a common atmosphere where openings are required to be protected.
3. Where analysis demonstrates shutoff would create a greater hazard.

The HVAC system shall not be restarted again until all the dampers are reset and fully opened.

609.0 Automatic Shutoffs.

Air-moving systems supplying air in excess of 2000 cubic feet per minute (944 L/s) to enclosed spaces within buildings shall be equipped with an automatic shutoff. Automatic shutoff shall be accomplished by interrupting the power source of the air-moving equipment upon detection of smoke in the main supply-air duct served by such equipment. Smoke detectors shall be labeled by an approved agency **[For SFM]** *approved and listed by California State Fire Marshal* for air duct installation and shall be installed in accordance with the manufacturer's approved **[For SFM]** *installation instructions*. Such devices shall be compatible, with the operating velocities, pressures, temperatures and humidities of the system. Where fire detection or alarm systems are provided for the building, the smoke detectors required by this section shall be supervised by such systems, ~~and shall activate the fire alarm system and installed in accordance with NFPA 72 and the California Building and Fire Codes.~~

Exceptions: (1) When the space supplied by the air-moving equipment is served by a total coverage smoke-detection system

complying with ~~[For SFM]~~ the California Fire Code, interconnection to such system may be used to accomplish the required shutoff.

(2) Automatic shutoff is not required when all occupied rooms served by the air-handling equipment have direct exit to the exterior and the travel distance does not exceed 100 feet (30,480 mm).

(3) Automatic shutoff is not required for Group R, Division 3 and Group U Occupancies.

(4) Automatic shutoff is not required for approved smoke-control systems or where analysis demonstrates shutoff would create a greater hazard such as may be encountered in air-moving equipment supplying specialized portions of Group H Occupancies. Such equipment shall be required to have smoke detection with remote indication and manual shutoff capability at an approved location.

(5) Smoke detectors that are factory installed in listed air-moving equipment may be used in lieu of smoke detectors installed in the main supply-air duct served by such equipment.

Notation

Authority: Health and Safety Code Sections 18928, 13113.5

Reference: Health and Safety Code Section 18949.2

CHAPTER 7

COMBUSTION AIR

(Note: Adopt entire chapter without amendments.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

CHAPTER 8

CHIMNEYS AND VENTS

(Note: Adopt entire chapter without amendments.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

CHAPTER 9

INSTALLATION OF SPECIFIC EQUIPMENT

(Note: Adopt entire chapter as amended below.)

~~904.1.1 [SFM] Access~~

~~A furnace room shall have an opening or door and passageway thereto not less than two (2) feet (610 mm) in width and large enough to permit removal of the largest furnace in such room. The furnace shall be installed so as to permit removal without disturbing piping, conduits, appurtenant valves and junction boxes.~~

~~Exceptions:~~

~~1. When the furnace room is large enough to permit dismantling the furnace within the room, the access opening and passageway need be large enough only to permit removal of the largest piece of furnace. This exception shall not be construed to waive the requirements of a minimum door and passageway of two (2) feet (610 mm).~~

~~2. Access to warm air furnaces installed in under floor spaces shall comply with Section 904.12.2.~~

~~3. Access to warm air furnaces installed in an attic or furred space shall comply with Section 904.11~~

~~4. Access to warm air furnaces installed on a roof or on an outside wall structure shall comply with Section 904.10~~

~~An unobstructed working space not less than thirty (30) inches (762 mm) in depth and the height of the furnace, but not less than thirty (30) inches (762 mm), shall be provided along the entire front or firebox side of every warm air furnace when the door of the furnace enclosure is open.~~

~~Heating system air filters, fuel control valves, vent collars, air handling units and externally mounted controls shall be accessible for maintenance, repair and replacement. Access space shall be as specified for cooling equipment in Section 1106.3.~~

904.1.2 ~~[For SFM] Prohibited Installations~~ Warm air furnaces shall not be installed:

904.1.2.1 ~~[For HCD 1 and HCD 2, SFM]~~ In a closet or alcove less than twelve (12) inches (305 mm) wider than the furnace or furnaces installed therein with a minimum clear working space less than three (3) inches (76 mm) along the sides, back and top of the furnace.

Exception: ~~Replacement forced air furnaces or air conditioning cooling coils may be installed in an existing closet or alcove with lesser width and depth when approved by the Administrative Authority and provided that such width and depth is in compliance with conditions of listing. Combustion air openings at the rear or side of the closet shall meet the requirements of Chapter 7.~~

904.1.2.2 ~~[For SFM]~~ In a hazardous location.

904.1.2.3 ~~[For SFM]~~ In an occupancy, unless separated by fire resistive construction from the rest of the building as required by the special hazards section of the Building Code.

904.1.2.4 ~~[For SFM]~~ In a room used or designed to be used as a bedroom, bathroom, closet or in any enclosed space with access only through such room or space.

Exception: ~~Direct vent furnaces, enclosed furnaces and electric heating furnaces. Access to furnaces located in an attic or under floor crawl space may be through a closet.~~

904.1.2.5 ~~[For SFM]~~ Outside of a building unless listed for exterior installation or enclosed in a weatherproof housing complying with Section 904.1.1

904.1.2.6 ~~[For SFM]~~ With clearance along the combustion chamber opening side of less than six (6) inches (152 mm) or working space along the entire front or firebox side less than specified in Section 903.0. 103

904.10 Equipment on Roofs ~~[For SFM]~~ or Exterior Walls of Buildings

904.10.1.2 ~~Roofs or exterior building walls on which equipment is to be installed shall be capable of supporting the additional load or shall be reinforced to support the additional load~~

904.10.1.4 ~~[For SFM] Weather Protection.~~ ~~Unless listed or designed for outside installation, a furnace on the roof of a building shall be enclosed in a penthouse complying with the requirements of the California Building Code for roof structures or shall be completely enclosed in a weatherproof housing. The housing, when constructed of metal, shall be of galvanized steel not less than 0.024 inch (0.61 mm) (No. 24 U.S. Standard gage) or of aluminum not less than No. 22 B.&S. gage supported on a substantial metal frame. The housing shall be not larger than necessary to properly cover and provide a minimum six (6) inch (152 mm) clearance around the appliance or appliances enclosed therein, including all controls and draft diverters.~~

904.10.1.5 ~~[For SFM] Ventilation.~~ ~~An enclosure or penthouse shall be provided with openings complying with the requirements of Chapter 7, together with means for proper ventilation of the furnace draft hood relief openings.~~

904.10.1.6 ~~[For SFM] Clearance.~~ ~~Clearance of the furnace from combustible construction shall be as specified in Section 304.1.~~

904.10.3 Access to Equipment on Roofs ~~[For SFM]~~ or Exterior Walls of Buildings

904.10.3.5 ~~[For SFM] Platform.~~ ~~A furnace located on a roof shall be installed on a substantial level platform. When the roof has a slope greater than four (4) in twelve (12), a level working platform at least thirty (30) inches (762 mm) in depth and width shall be provided along the firebox and control sides of the furnace. Sides of a working platform facing the roof edge below shall be protected by a substantial railing forty-two (42) inches (1067 mm) in height with vertical rails not more than twenty-one (21) inches (533 mm) apart, except that parapets at least twenty-four (24) inches (610 mm) in height may be utilized in lieu of rails or guards.~~

904.10.3.6 [For SFM] Catwalk. On roofs having slopes greater than four (4) in twelve (12), a catwalk at least twenty-four (24) inches (610 mm) in width with substantial cleats spaced not more than sixteen (16) inches (406 mm) apart shall be provided from the roof access to the working platform at the appliance.

904.10.3.7 [For HCD 1 and HCD 2, SFM] Roof Access Scuttle. Required working platforms, railings and catwalks may be omitted when access to the equipment is through a required roof scuttle and all of the following provisions are met:

904.10.3.7.1 [For SFM] The required scuttle is located immediately adjacent to the control side of the equipment unit.

904.10.3.7.2 [For SFM] Controls, filters, burners, fans and motors are accessible for service and repair within two (2) feet (610 mm) of the edge of the equipment platform on the scuttle side.

904.10.3.7.3 [For SFM] The equipment platform is not more than twenty (20) inches (508 mm) above the high side of the scuttle opening.

904.10.3.7.4 [For SFM] A substantial working platform not less than thirty (30) inches (762 mm) in depth and width shall be provided directly below the scuttle at a point not less than thirty (30) inches (762 mm) or more than thirty-two (32) inches (813 mm) below the high side of the scuttle opening.

904.10.3.7.5 [For SFM] Scuttles located on other than the roof incline side of the equipment unit shall have the hatch hinged on the low side of the scuttle. Hatches shall be equipped with means to ensure an opening angle of not less than 90 degrees (1.57 rad) nor more than 100 degrees (1.75 rad) from the closed position. Hatches and hardware, when open, shall be capable of withstanding a 300 pound (1334 N) lateral force from the roof incline side.

904.10.3.7.6 [For SFM] Access to scuttles shall comply with Section 904.11.

904.10.3.8 [For SFM] Access to Equipment on Exterior Walls. Every furnace installed in or on an exterior wall of a building, which is designed so that the burners or controls must be serviced from outside the building, shall be readily accessible. Furnaces located on the roof of a building shall be readily accessible.

Exceptions:

1. Permanent exterior ladders providing roof access need not extend closer than eight (8) feet (2438 mm) to the finish grade.
2. A portable ladder may be used for access for furnaces on the single-story portion of a Group R or U Occupancy.
3. Permanent ladders for equipment access need not be provided at parapets or walls less than thirty (30) inches (762 mm) in height.

~~Permanent ladders providing roof access shall:~~

904.10.3.8.1 For HCD 1 and HCD 2, r SFM] Have side railings which extend at least thirty (30) inches (762 mm) above the roof edge or parapet wall.

904.10.3.8.2 [For SFM] Have landings less than eighteen (18) feet (5486 mm) apart measured from the finished grade.

904.10.3.8.3 [For SFM] Be at least fourteen (14) inches (356 mm) in width.

904.10.3.8.4. [For SFM] Have rungs not more than fourteen (14) inches (356 mm) on center.

904.10.3.8.5 [For SFM] Have a minimum of six (6) inch (152 mm) toe space.

904.11 [For SFM] Attic Furnaces (Upright and Horizontal) Upright furnaces may be installed in an attic or furred space more than five (5) feet (1524 mm) in height, provided the required listings and furnace and duct clearances are observed. Horizontal furnaces may be installed in an attic or furred space provided the required listings and furnace and duct clearances are observed.

Clearances of a warm air attic furnace from combustibles shall be as specified in Section 304.1.

An attic or furred space in which a warm air furnace is installed shall be accessible by an opening and passageway as large as the largest piece of the furnace and in no case less than thirty (30) inches by thirty (30) inches (762 mm x 762 mm) continuous from the opening to the furnace and its controls.

Exception: The access opening into the space may be twenty-two (22) inches by thirty (30) inches (559 mm x 762 mm), provided the largest piece of equipment can be removed through the opening.

~~The distance from the passageway access to furnace shall not exceed twenty (20) feet (6096 mm) measured along the center line of the passageway. The passageway shall be unobstructed and shall have continuous solid flooring not less than twenty four (24) inches (610 mm) wide from the entrance opening to the furnace.~~

~~A level working platform not less than thirty (30) inches (762 mm) in depth and width shall be provided in front of the entire firebox side of the warm-air furnace, and if the furnace temperature limit control, air filter, fuel control valve, vent collar or air handling unit is not serviceable from the firebox side of the furnace, a continuous floor not less than twenty four (24) inches (610 mm) in width shall be provided from the platform in front of the firebox side of the furnace to and in front of this equipment.~~

~~**Exception:** A working platform need not be provided when the furnace can be serviced from the required access opening.~~

~~A permanent electric outlet and lighting fixture controlled by a switch located at the required passageway opening shall be provided at or near the furnace.~~

904.12.932.0 [For SFM] Warm-Air Furnaces Located in Under-Floor Spaces ~~A warm-air furnace installed in the under-floor area of a building shall comply with the following requirements:~~

~~Applications listed in Section 111 regulated by the Office of the State Fire Marshal shall comply with the following requirements:~~

904.12.1-932.1 [For SFM] Clearance from combustibles shall be as specified in Section 304.1.

904.12.2-932.2 [For SFM] An access opening and passageway of a height and width sufficient to permit removal of the furnace, but in no case less than thirty (30) inches by thirty (30) inches (762 mm x 762 mm), shall be provided to the working space in front of the furnace. The access opening to the passageway shall be through an opening in an exterior wall of the building or through a trap door within the building. The distance from the passageway access to the center line of the working space in front of the furnace burner shall not exceed twenty (20) feet (6096 mm) measured along the center line of the passageway.

904.12.3-932.3 [For SFM] A furnace supported from the ground shall rest on a concrete slab extending not less than three (3) inches (76 mm) above the adjoining ground level.

904.12.4-932.4 [For SFM] The lowest portion of a suspended furnace shall have a clearance of at least six (6) inches (152 mm) from the ground. Excavation necessary to install a furnace shall extend to a depth of six (6) inches (152mm) below and twelve (12) inches (305 mm) on all sides of the furnace, except the control side, which shall have thirty (30) inches (762 mm). If the depth of the excavation for either furnace or passageway exceeds twelve (12) inches (305 mm), walls of the excavation shall be lined with concrete or masonry extending four (4) inches (102 mm) above the adjoining ground level. In floodplain areas the entire crawl space grade or height shall provide twelve (12) inch (305 mm) clearance between the bottom of the furnace and the ground.

904.12.5-932.5 [For SFM] A permanent electric outlet and lighting fixture controlled by a switch located at the passageway opening shall be provided at or near the furnace.

Notation

Authority: Health and Safety Code Section 17921

Reference: Health and Safety Code Section 18949.2

CHAPTER 10

STEAM AND HOT WATER BOILERS

(Note: Adopt entire chapter without amendments.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

CHAPTER 11 REFRIGERATION

(Note: Adopt entire chapter without amendments.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

CHAPTER 12 HYDRONICS

(Note: This chapter is not adopted.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

CHAPTER 13 FUEL GAS PIPING

(Note: Adopt entire chapter without amendments.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

CHAPTER 14 PROCESS PIPING

(Note: Adopt entire chapter without amendments.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

CHAPTER 15 SOLAR SYSTEMS

(Note: This chapter is not adopted.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

CHAPTER 16

STATIONARY FUEL CELL POWER PLANTS

(Note: Adopt entire chapter without amendments.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

CHAPTER 17 STANDARDS

(Note: Adopt entire chapter without amendments.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

APPENDIX A UNIFORM MECHANICAL CODE STANDARD NO. 2-2

(Note: Adopt entire chapter without amendments.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

APPENDIX A UNIFORM MECHANICAL CODE STANDARD NO. 6-2

(Note: Adopt entire chapter without amendments.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

APPENDIX A UNIFORM MECHANICAL CODE STANDARD NO. 6-5

(Note: Adopt entire chapter without amendments.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

APPENDIX B PROCEDURES TO BE FOLLOWED TO PLACE GAS EQUIPMENT IN OPERATION

(Note: This chapter is not adopted.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

APPENDIX C

INSTALLATION AND TESTING OF OIL (LIQUID) FUEL-FIRED EQUIPMENT APPENDIX D UNIT CONVERSION TABLES

(Note: This chapter is not adopted.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143

APPENDIX D

UNIT CONVERSION TABLES

(Note: This chapter is not adopted.)

Notation

Authority: Health and Safety Code Sections 13143, 17921, 18949

References: Health and Safety Code Sections 13143